

using any suitable means, such as a flange and fastener. The elbow fitting 17, in this preferred embodiment, includes a second flange to permit connection of the elbow fitting 17 to the housing 9. Similarly, the elbow 15 includes elbow fittings 18 and 19, which connect together using any suitable means, such as a flange and fastener. The elbow fitting 19, in this preferred embodiment, includes a second flange to permit connection of the elbow fitting 17 to the housing 9. Although this preferred embodiment discloses a manifold 8 for delivering fluid flow into the housing 9, those of ordinary skill in the art will recognize many other suitable and equivalent means, such as two pumps and separate connections to the housing 9 or a single pump delivering fluid into side portions of the housing 9 instead of end portions.

REMARKS

Claims 1-48 were originally filed in Application Number 09/899,467. The Examiner restricted the referenced original application to a single Genus and a single Species. Applicant elected to prosecute the Group I, Species I claims in the original application. Applicant accordingly is filing a divisional application based on the referenced original application accompanied by this preliminary amendment. This divisional application will prosecute the claims associated with Group I, Species II in the original application. Applicant has canceled claims 1-12, 24-41 and 45-48. Applicant further has amended claims 13 and 42, and now presents herewith claims 13-23 and 42-44, including a marked version appended hereto.

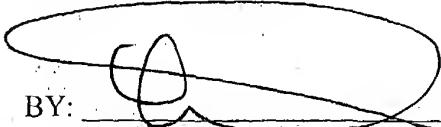
Claims 13 and 42 have been amended to recite an inlet port "substantially tangential and normal to the passageway." References cited in the parent application do not disclose an inlet port "substantially tangential and normal to the passageway.

The specification has been amended to correct reference number errors. The reference number for the pump is 7. References to the "pump 6" have been changed to recite "pump 7."

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post office to Addressee" service under 37 CFR 1.10 on the dated indicated below, addressed to the COMMISSIONER FOR PATENTS, P.O. Box 1450, Alexandria, VA. 22313-1450.

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AMENDED CLAIMS MARKED TO ILLUSTRATE REVISIONS

13. (amended) A vortex nozzle, comprising:

a nozzle body including a passageway therethrough and a port that inlets a fluid flow into the passageway, whereby the port is substantially tangential and normal to the passageway; and
an endcap attached to the nozzle body.

42. (amended) A vortex nozzle, comprising:

a nozzle body including a passageway;
at least a segment of the passageway being tapered; and
a port that inlets a fluid flow into the passageway, the port being substantially tangential and normal to the passageway.

AMENDED SPECIFICATION MARKED TO ILLUSTRATE REVISIONS

Page 5, 2nd paragraph of the detailed description:

The pump 7 [6] includes an outlet 11 and is any suitable pump capable of pumping fluid from a fluid source through the apparatus 5. Fluid, in this preferred embodiment, is any flowable liquid or gas or solid particulates deliverable under pressurized gas or liquid flow. Although this preferred embodiment discloses a pump 7 [6] for delivering fluids, those of ordinary skill in the art will recognize many other suitable and equivalent means, such as pressurized gas canisters.

Page 6, 1st paragraph:

The manifold 8 includes an inlet 12, a diverter 13, and elbows 14 and 15. The inlet 12 couples to the outlet 11 of the pump 7 [6], using any suitable means, such as a flange and fasteners, to receive a fluid flow from the pump 7 [6]. The inlet 12 fits within an inlet of the diverter 13 and is held therein by friction, welding glue, or the like, to deliver fluid into the diverter 13. The diverter 13 receives the fluid flow therein and divides the fluid flow into a first fluid flow and a second fluid flow by changing the direction of fluid flow substantially perpendicular relative to the flow from the inlet 12. The diverter connects to the elbows 14 and 15 by friction, welding, glue, or the like, to deliver the first fluid flow to the elbow 14 and the second fluid flow to the elbow 15. Each elbow 14 and 15 reverses its respective fluid flow received from the diverter 13 to deliver the fluid flow to the housing 9. The elbow 14 includes elbow fittings 16 and 17, which connect together using any suitable means, such as a flange and fastener. The

elbow fitting 17, in this preferred embodiment, includes a second flange to permit connection of the elbow fitting 17 to the housing 9. Similarly, the elbow 15 includes elbow fittings 18 and 19, which connect together using any suitable means, such as a flange and fastener. The elbow fitting 19, in this preferred embodiment, includes a second flange to permit connection of the elbow fitting 17 to the housing 9. Although this preferred embodiment discloses a manifold 8 for delivering fluid flow into the housing 9, those of ordinary skill in the art will recognize many other suitable and equivalent means, such as two pumps and separate connections to the housing 9 or a single pump delivering fluid into side portions of the housing 9 instead of end portions.